

11-1: Introduction to Polynomials

- What is the degree of a polynomial?
- What are the terms of a polynomial?
- What is the standard form of a polynomial?
- What is the leading coefficient of a polynomial?
- What does expanding a polynomial mean?
- Know the difference between linear, quadratic, cubic, quartic, and n^{th} degree polynomials.
- What is a polynomial function?

11-2: Polynomials and Geometry

- What is a monomial? Binomial? Trinomial?
- Explain the meaning of the degree of a polynomial in several variables.
- How does the extended distributive property work?

11-3: Factoring Special Cases

- What is factoring?
- What is binomial-square factoring?
- What is the difference of squares factoring?
- What is the discriminant theorem for factoring quadratics?
- When is a polynomial prime or irreducible?

11-4: Estimating Solutions to Polynomial Equations

- Be able to use your calculator to find solutions to higher-degree polynomials.
- What does it mean to find a solution to an equation?

11-5: The Factor Theorem

- What is the Zero-product Theorem?
- What is the Factor Theorem?
- What does it mean to “find zeros?”

11-6: Factoring Quadratic Trinomials and Related Polynomials

- Be able to use various methods to factor polynomials

11-7: The Rational-Zero Theorem

- Be able to use the Rational-Zero theorem to find exact solutions to a polynomial

11-8: Solving All Polynomial Equations

- What is the Fundamental Theorem of Algebra?
- What is the Number of Roots of a Polynomial Equations Theorem?
- What does it mean when a root has multiplicity?

11-9: Finite Differences

- Be able to determine what kind of polynomial you have by examining differences.
- What is the Polynomial-Difference Theorem?
- What is the method of finite differences?

11-10: Modeling Data with Polynomials

- Be able to apply the methods learned in 11-9 to real world situations

*****Check the Chapter 11 wiki page for Wiki Summary assignments!!!*****

Chapter 11 Projects (p. 737-8) are due the day *after* the Chapter 11 Test Part II. You may work with one partner, and you should begin working on it sooner rather than later. We will use the same rubric as the other chapters.